OIPE

#7

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/907,007

DATE: 08/08/2001
TIME: 19:26:16

Input Set : N:\Crf3\RULE60\09907007.txt
Output Set: N:\CRF3\08082001\I907007.raw

```
 4 <110> APPLICANT: Hayward, Nicholas K.
 5       Weber, Gunther
 6       Grimmond, Sean
 7       Nordenskjold, Magnus
 8       Larsson, Catharina
10 <120> TITLE OF INVENTION: A NOVEL GROWTH FACTOR AND A GENETIC SEQUENCE ENCODING
11       SAME
13 <130> FILE REFERENCE: DAVIES
15 <140> CURRENT APPLICATION NUMBER: 09/907,007
C--> 16 <141> CURRENT FILING DATE: 2001-07-17
18 <150> PRIOR APPLICATION NUMBER: 08/765,588
19 <151> PRIOR FILING DATE: 1996-02-22
21 <160> NUMBER OF SEQ ID NOS: 22
23 <170> SOFTWARE: PatentIn Ver. 2.1
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 649
27 <212> TYPE: DNA
28 <213> ORGANISM: Nucleotide Sequence of VEGF165
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (17)..(589)
34 <400> SEQUENCE: 1
35 tcgggcctcc gaaacc atg aac ttt ctg ctg tct tgg gtg cat tgg agc ctt 52
37                     Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu
38                       1               5                  10
40 gcc ttg ctg ctc tac ctc cac cat gcc aag tgg tcc cag gct gca ccc   100
42 Ala Leu Leu Leu Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro
43             15                  20                  25
45 atg gca gaa gga gga ggg cag aat cat cac gaa gtg gtg aag ttc atg   148
47 Met Ala Glu Gly Gly Gly Gln Asn His His Glu Val Val Lys Phe Met
48         30                  35                  40
50 gat gtc tat cag cgc agc tac tgc cat cca atc gag acc ctg gtg gac   196
52 Asp Val Tyr Gln Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp
53  45                  50                  55                  60
55 atc ttc cag gag tac cct gat gag atc gag tac atc ttc aag cca tcc   244
57 Ile Phe Gln Glu Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser
58                  65                  70                  75
60 tgt gtg ccc ctg atg cga tgc ggg ggc tgc tgc aat gac gag ggc ctg   292
62 Cys Val Pro Leu Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu
63              80                  85                  90
65 gag tgt gtg ccc act gag gag tcc aac atc acc atg cag att atg cgg   340
67 Glu Cys Val Pro Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg
68          95                  100                 105
70 atc aaa cct cac caa ggc cag cac ata gga gag atg agc ttc cta cag   388
72 Ile Lys Pro His Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln
73      110                 115                 120
75 cac aac aaa tgt gaa tgc aga cca aag aaa gat aga gca aga caa gaa   436
```

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/907,007

DATE: 08/08/2001
TIME: 19:26:16

Input Set : N:\Crf3\RULE60\09907007.txt
Output Set: N:\CRF3\08082001\I907007.raw

```
77 His Asn Lys Cys Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu
78 125                 130                 135                 140
80 aat ccc tgt ggg cct tgc tca gag cgg aga aag cat ttg ttt gta caa   484
82 Asn Pro Cys Gly Pro Cys Ser Glu Arg Arg Lys His Leu Phe Val Gln
83                 145                 150                 155
85 gat ccg cag acg tgt aaa tgt tcc tgc aaa aac aca gac tcg cgt tgc   532
87 Asp Pro Gln Thr Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys
88             160                 165                 170
90 aag gcg agg cag ctt gag tta aac gaa cgt act tgc aga tgt gac aag   580
92 Lys Ala Arg Gln Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys
93         175                 180                 185
95 ccg agg cgg tgagccgggc aggaggaagg agcctccctc agcgtttcgg           629
97 Pro Arg Arg
98     190                                                         649
100 gaaccagatc tctcaccagg
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 191
106 <212> TYPE: PRT
107 <213> ORGANISM: Nucleotide Sequence of VEGF165
109 <400> SEQUENCE: 2
110 Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu Leu
111   1               5                  10                  15
113 Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly
114             20                  25                  30
116 Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
117         35                  40                  45
119 Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu
120     50                  55                  60
122 Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu
123 65                  70                  75                  80
125 Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro
126                 85                  90                  95
128 Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His
129             100                 105                 110
131 Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys
132         115                 120                 125
134 Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Asn Pro Cys Gly
135     130                 135                 140
137 Pro Cys Ser Glu Arg Arg Lys His Leu Phe Val Gln Asp Pro Gln Thr
138 145                 150                 155                 160
140 Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys Lys Ala Arg Gln
141                 165                 170                 175
143 Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys Pro Arg Arg
144             180                 185                 190
148 <210> SEQ ID NO: 3
149 <211> LENGTH: 1094
150 <212> TYPE: DNA
151 <213> ORGANISM: Nucleotide Sequence of SOM175
153 <220> FEATURE:
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/907,007

DATE: 08/08/2001
TIME: 19:26:16

Input Set : N:\Crf3\RULE60\09907007.txt
Output Set: N:\CRF3\08082001\I907007.raw

```
154 <221> NAME/KEY: CDS
155 <222> LOCATION: (3)..(623)
157 <400> SEQUENCE: 3
158 cc atg agc cct ctg ctc cgc cgc ctg ctg ctc gcc gca ctc ctg cag    47
160    Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln
161      1               5                  10                  15
163 ctg gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct ggc cac    95
165 Leu Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His
166                  20                  25                  30
168 cag agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc   143
170 Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys
171              35                  40                  45
173 cag ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc   191
175 Gln Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr
176          50                  55                  60
178 gtg gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt   239
180 Val Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly
181      65                  70                  75
183 ggc tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac   287
185 Gly Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His
186  80                  85                  90                  95
188 caa gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg   335
190 Gln Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu
191                 100                 105                 110
193 ggg gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa   383
195 Gly Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys
196             115                 120                 125
198 aaa aag gac agt gct gtg aag cca gac agg gct gcc act ccc cac cac   431
200 Lys Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His
201         130                 135                 140
203 cgt ccc cag ccc cgt tct gtt ccg ggc tgg gac tct gcc ccc gga gca   479
205 Arg Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala
206     145                 150                 155
208 ccc tcc cca gct gac atc acc cat ccc act cca gcc cca ggc ccc tct   527
210 Pro Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser
211 160                 165                 170                 175
213 gcc cac gct gca ccc agc acc acc agc gcc ctg acc ccc gga cct gcc   575
215 Ala His Ala Ala Pro Ser Thr Thr Ser Ala Leu Thr Pro Gly Pro Ala
216                 180                 185                 190
218 gct gcc gct gcc gac gcc gca gct tcc tcc gtt gcc aag ggc ggg gct   623
220 Ala Ala Ala Ala Asp Ala Ala Ala Ser Ser Val Ala Lys Gly Gly Ala
221             195                 200                 205
223 tagagctcaa cccagacacc tgcaggtgcc ggaagctgcg aaggtgacac atggcttttc 683
226 agactcagca gggtgacttg cctcagaggc tatatcccag tgggggaaca aaggggagcc 743
229 tggtaaaaaa cagccaagcc cccaagacct cagcccaggc agaagctgct ctaggacctg 803
232 ggcctctcag agggctcttc tgccatccct tgtctccctg aggccatcat caaacaggac 863
235 agagttggaa gaggagactg ggaggcagca agaggggtca cataccagct caggggagaa 923
238 tggagtactg tctcagtttc taaccactct gtgcaagtaa gcatcttaca actggctctt 983
241 cctcccctca ctaagaagac ccaaacctct gcataatggg atttgggctt tggtacaaga 1043
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/907,007

DATE: 08/08/2001
TIME: 19:26:16

Input Set : N:\Crf3\RULE60\09907007.txt
Output Set: N:\CRF3\08082001\I907007.raw

```
244 actgtgaccc ccaaccctga taaaagagat ggaaggaaaa aaaaaaaaaa a          1094
248 <210> SEQ ID NO: 4
249 <211> LENGTH: 207
250 <212> TYPE: PRT
251 <213> ORGANISM: Nucleotide Sequence of SOM175
253 <400> SEQUENCE: 4
254 Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln Leu
255   1               5                  10                  15
257 Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
258             20                  25                  30
260 Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
261         35                  40                  45
263 Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
264     50                  55                  60
266 Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
267 65                  70                  75                  80
269 Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
270                 85                  90                  95
272 Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
273             100                 105                 110
275 Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
276         115                 120                 125
278 Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His Arg
279     130                 135                 140
281 Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala Pro
282 145                 150                 155                 160
284 Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser Ala
285                 165                 170                 175
287 His Ala Ala Pro Ser Thr Thr Ser Ala Leu Thr Pro Gly Pro Ala Ala
288             180                 185                 190
290 Ala Ala Ala Asp Ala Ala Ala Ser Ser Val Ala Lys Gly Gly Ala
291         195                 200                 205
295 <210> SEQ ID NO: 5
296 <211> LENGTH: 993
297 <212> TYPE: DNA
298 <213> ORGANISM: Nuc. Seq. of SOM175 Absent Exon 6
300 <220> FEATURE:
301 <221> NAME/KEY: CDS
302 <222> LOCATION: (3)..(566)
304 <400> SEQUENCE: 5
305 cc atg agc cct ctg ctc cgc cgc ctg ctg ctc gcc gca ctc ctg cag    47
307    Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln
308      1               5                  10                  15
310 ctg gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct ggc cac   95
312 Leu Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His
313                 20                  25                  30
315 cag agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc   143
317 Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys
318             35                  40                  45
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/907,007

DATE: 08/08/2001
TIME: 19:26:16

Input Set : N:\Crf3\RULE60\09907007.txt
Output Set: N:\CRF3\08082001\I907007.raw

```
320 cag ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc   191
322 Gln Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr
323          50                  55                  60
325 gtg gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt   239
327 Val Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly
328      65                  70                  75
330 ggc tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac   287
332 Gly Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His
333  80                  85                  90                  95
335 caa gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg   335
337 Gln Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu
338                 100                 105                 110
340 ggg gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa   383
342 Gly Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys
343             115                 120                 125
345 aaa aag gac agt gct gtg aag cca gat agc ccc agg ccc ctc tgc cca   431
347 Lys Lys Asp Ser Ala Val Lys Pro Asp Ser Pro Arg Pro Leu Cys Pro
348         130                 135                 140
350 cgc tgc acc cag cac cac cag cgc cct gac ccc cgg acc tgc cgc tgc   479
352 Arg Cys Thr Gln His His Gln Arg Pro Asp Pro Arg Thr Cys Arg Cys
353     145                 150                 155
355 cgc tgc cga cgc cgc agc ttc ctc cgt tgc caa ggg cgg ggc tta gag   527
357 Arg Cys Arg Arg Arg Ser Phe Leu Arg Cys Gln Gly Arg Gly Leu Glu
358 160                 165                 170                 175
360 ctc aac cca gac acc tgc agg tgc cgg aag ctg cga agg tgacacatgg    576
362 Leu Asn Pro Asp Thr Cys Arg Cys Arg Lys Leu Arg Arg
363                 180                 185
365 cttttcagac tcagcagggt gacttgcctc agaggctata tcccagtggg ggaacaaagg 636
368 ggagcctggt aaaaaacagc caagccccca agacctcagc ccaggcagaa gctgctctag 696
371 gacctgggcc tctcagaggg ctcttctgcc atcccttgtc tccctgaggc catcatcaaa 756
374 caggacagag ttggaagagg agactgggag gcagcaagag gggtcacata ccagctcagg 816
377 ggagaatgga gtactgtctc agtttctaac cactctgtgc aagtaagcat cttacaactg 876
380 gctcttcctc ccctcactaa gaagacccaa acctctgcat aatgggattt gggctttggt 936
383 acaagaactg tgacccccaa ccctgataaa agagatggaa ggaaaaaaaa aaaaaaa    993
387 <210> SEQ ID NO: 6
388 <211> LENGTH: 188
389 <212> TYPE: PRT
390 <213> ORGANISM: Nuc. Seq. of SOM175 Absent Exon 6
392 <400> SEQUENCE: 6
393 Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln Leu
394   1               5                  10                  15
396 Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
397             20                  25                  30
399 Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
400         35                  40                  45
402 Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
403     50                  55                  60
405 Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
406 65                  70                  75                  80
```

VERIFICATION SUMMARY DATE: 08/08/2001
PATENT APPLICATION: **US/09/907,007** TIME: 19:26:17

Input Set : **N:\Crf3\RULE60\09907007.txt**
Output Set: **N:\CRF3\08082001\I907007.raw**

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date